



SENSOR SWITCH

Item.#	RBS3108 Series	Description	TILT SWITCH	Version	V96.0
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● APPLICATIONS

1. Tilt Detecting within a 360° radius:
LCD Monitor Rotation
Home Appliance Tilt Off function
2. Slight Vibration Detecting:
Earthquake Alarm



● FEATURES

1. Small size & compact space.
2. Housing made of high insulation plastic material, free from electric conduction and rust problem.
3. Using photo transistors to detect signal makes the signal highly reliable and stable.
4. All plastic material subject to industrial purpose meets with UL94V-0 grade; high temperature and fireproof function.
5. Suitable to IC trigger signal.
6. Suitable to vertical PCB.
7. Tilt Angles: 15°, 20°, 30°, and 45° within a 360° radius.
8. Complete replacement of mercury switch and meet with environmental protection.

● PATENTS

1. TAIWAN Patent NO. 181431
2. CHINA Patent NO. ZL 01 2 60920.X
3. U.S.A. Patent NO. US 6,800,841 B1



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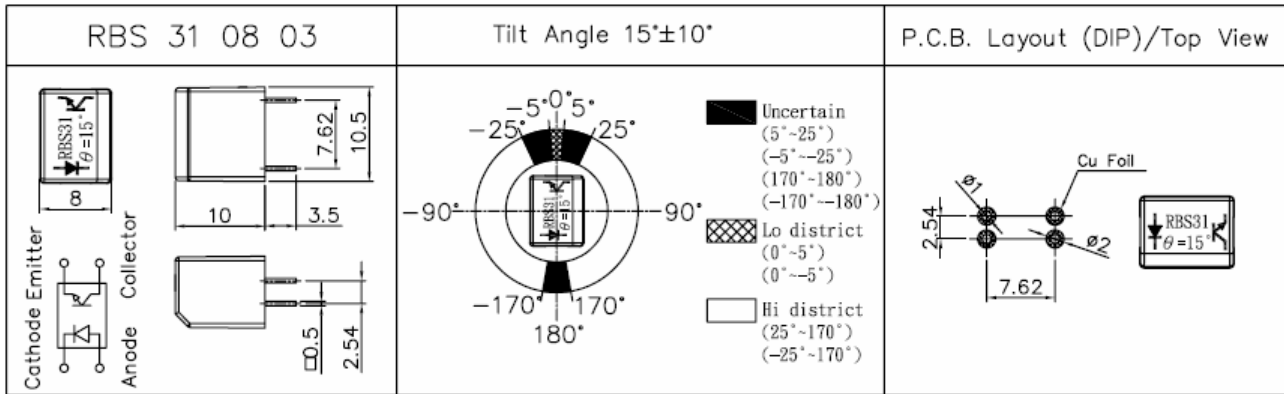
● DIMENSIONS / OPERATION / P.C.B. LAYOUT (Unit: mm, Tolerance: ±0.25mm)

<p>RBS 31 08 00</p>	<p>Tilt Angle 45°±10°</p>	<p>P.C.B. Layout (DIP)/Top View</p>
<p>RBS 31 08 01</p>	<p>Tilt Angle 30°±10°</p>	<p>P.C.B. Layout (DIP)/Top View</p>
<p>RBS 31 08 02</p>	<p>Tilt Angle 20°±10°</p>	<p>P.C.B. Layout (DIP)/Top View</p>



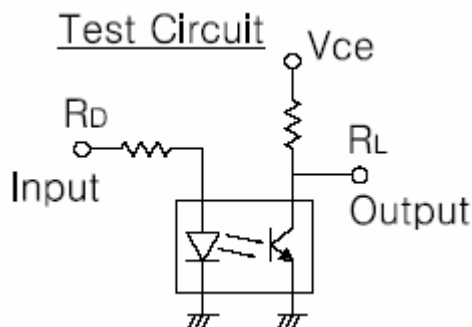
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● ELECTRICAL CHARACTERISTICS

ITEMS	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
INPUT						
Forward Voltage	V _f	-	1.2	1.5	V	I _f = 20mA
Reverse Current	I _r	-	-	10	μA	V _r = 5V
OUTPUT						
Dark Current	I _{ceo}	-	-	2	μA	V _{ce} = 10V
COUPLED						
Output Current	I _c	0.5	5.0	-	mA	V _{ce} = 5V
Rise Time	T _r	-	5.0	-	μs	I _c = 0.8mA V _{cc} = 30V
Fall Time	T _f	-	5.0	-	μs	R _L = 1KΩ





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● MECHANICAL CHARACTERISTICS

1.	Temperature Range	Operating: -25°C to +85°C Storage: -40°C to +85°C
2.	Pull Force of Terminal	500 gf for 1 minute
3.	Operation Life	30,000 Hours
4.	Humidity	95% RH, 40° C for 96 hrs.
5.	Solder ability	After flux 245±5°C for 5±0.5 seconds 95% coverage

● BILL OF MATERIAL

1.	Housing	Class-Fiber Polyamide, UL 94-0
2.	Base	Class-Fiber Polyamide, UL 94-0
3.	Ball	Stainless Steel
4.	Infrared Emitting Diodes	
5.	Silicon Photo Transistors	
6.	Inside part	Copper Alloy, Nickel Plated

● PACKAGE

	Part Number	Package	Quantity	Total	Size
1.	RBS310800	PE Bag	250 pcs	250 pcs	12.7 x 17.8 cm
	RBS310801	Inner Box	8 Bags	2,000 pcs	36 x 20 x 9 cm
	RBS310802		3 Boxes	6,000 pcs	36 x 28 x 23 cm
2.	RBS310800	IC tube	48 pcs	48 pcs	52.5 cm
	RBS310801	Inner Box	84 tubes	4,032 pcs	54 x 13 x 13 cm
	RBS310802		4 Boxes	16,128 pcs	55 x 29 x 29 cm
	RBS310803				

* Minimum Order Quantity: One Bag / One Box (84 tubes)

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● NOTE

1. Strongly recommend that using 20mA as input current.
2. For the continued product improvement as one of the company policy, specifications may change or update without notice. The latest information can be obtained through our sales offices. Normally, all products are supplied under our standard conditions.

● PRECAUTIONS FOR USE

1. The product is used mainly in electronic devices such as automotive devices, visual devices, home electrical appliances, information devices and communication settings. If the products is intended to be used for other endurance equipments requiring higher safety and reliability such as life support system, space and aviations devices, disaster and safety system, it's necessary to make verification of conformity or contact us for the details before using.
2. Don't try to clean the switch with a solvent or similar substance after the soldering process.
3. The switch might be damaged if using the water-soluble flux.